

## NEW RECORDS OF SOME ORIENTAL SPECIES OF THE SUBFAMILY PYRAUSTINAE FROM JAPAN (LEPIDOPTERA: PYRALIDAE)\*

YUTAKA YOSHIYASU

Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka

In this paper 3 species of the subfamily Pyraustinae, i.e., *Marasmia euryterminalis* Hampson, *Mecyna gilvata* (Fabricius) and *Maruca amboinalis* (Felder et Rogenhofer), are reported to occur in Japan for the first time. Redescriptions of the adult and male genitalia of these species or those of the adult alone are presented. In addition, the occurrence of *Nausinoe perspectata* (Fabricius) and *Cirrhochrista kosemponialis* Strand are confirmed again from Japan.

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### 1. *Marasmia euryterminalis* Hampson (Figs. 1-7, 21)

*Marasmia euryterminalis* Hampson, 1917, Ann. Mag. Nat. Hist. (8) 20: 378.

♂ & ♀: Antenna filiform, fuscous brown. Labial palpus short, broad, fuscous, white below; maxillary palpus with pointed apex which is white below and black above, reached to apex of labial palpus. Wings pale yellowish brown. Forewing with many minute black dots on basal 3/4 of costa; antemedial line dark brown, inwardly oblique, almost straight, parallel to termen, somewhat retracted in cell Cu<sub>1</sub>; a broad dark brown marginal band; a short fuscous discocellular lunule; and a sexual patch of white fine hairs entirely covered by large fuscous scales in apical 1/2 of discoidal cell. Hindwing with dark postmedial line retracted to posterior end of dark brown discocellular lunule; marginal band broad, dark brown, its inner margin almost straight. Legs pale ochreous; fore tibia with dense hairs brown.

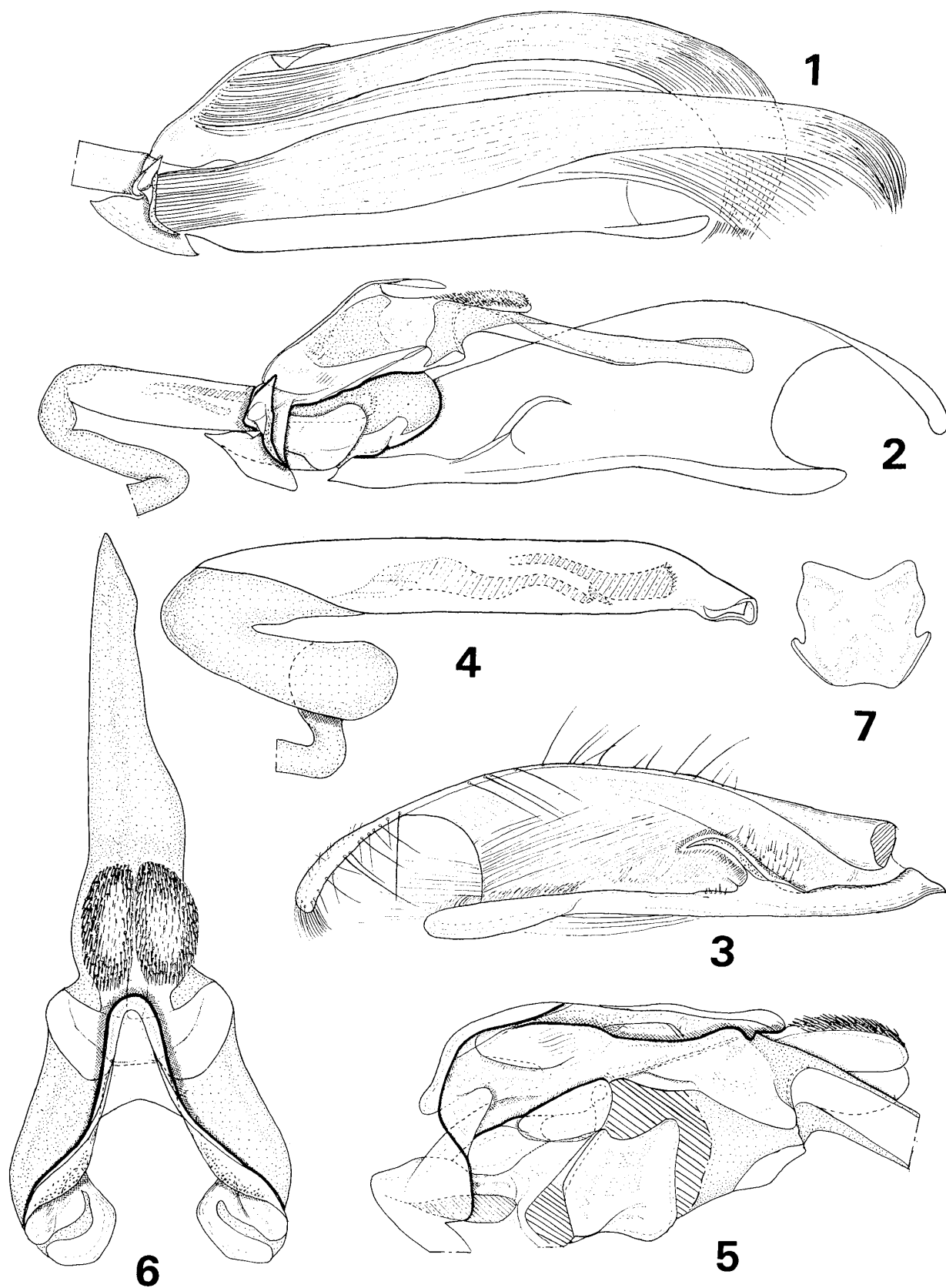
♂ genitalia: Tegumen large, with broad membranous area laterally, anterodorsal margin expanded as a roof-like process over uncus, long curled hair tuft from anterolateral portion of tegumen; a similar but straight hair tuft on concaved cavity of ventral extremity of tegumen. Vinculum low and broad, broadly emarginate posteriorly, with a weak ventral keel; saccus short, broad at base. Uncus with broad rounded lateral expansions basally, and a pair of oval projections apically, the latter densely covered dorsally with yellow spine-like hairs. Gnathos broad, with weakly sclerotized spinules ventrally, in basal margin of gnathos long, and articulated with basal expansion of uncus and ventral extremity of tegumen. Anal tube elongate, with a long sclerotized plate ventrally. Aedeagus long, with some spines at apex of elongate cornutus, coecum undeveloped. Juxta broad. Valva long, 2.5 times as long as height of ring, dilating apically, with arched dorsal margin and weakly concave ventral margin; costa broad in proximal portion; ampulla of a narrow oblique sclerite, dorsal margin of which is strongly ridged; anellifer with long setae; sacculus short and broad; process of harpe falcate with small denticles; cuculus large, deeply emerginate apically, dorsal portion projecting as an elongate lobe, with long ciliae marginally, and with long, dense, inwardly directing hairs from apical portion and ventral projection.

Specimens examined: 1 ♀, Anbo, Yakushima Is., 28. July, 1929 (H. Hori); 1 ♂, Nakano-shima, Tokara Iss., 25. July, 1964 (A. Tanaka); 1 ♂, 3 ♀, Hakozaiki, Fukuoka, Fukuoka Pref., 1-10. Jan., 1972 (reared by Y. Yoneda in laboratory); 1 ♂, Anbo, Yakushima Is., 11. July, 1971; 1 ♂, Miyanoura, Yakushima Is., 16. July, 1971; 1 ♀, Miyanoura, Yakushima Is., 19. July, 1971 (Y. Yoshiyasu).

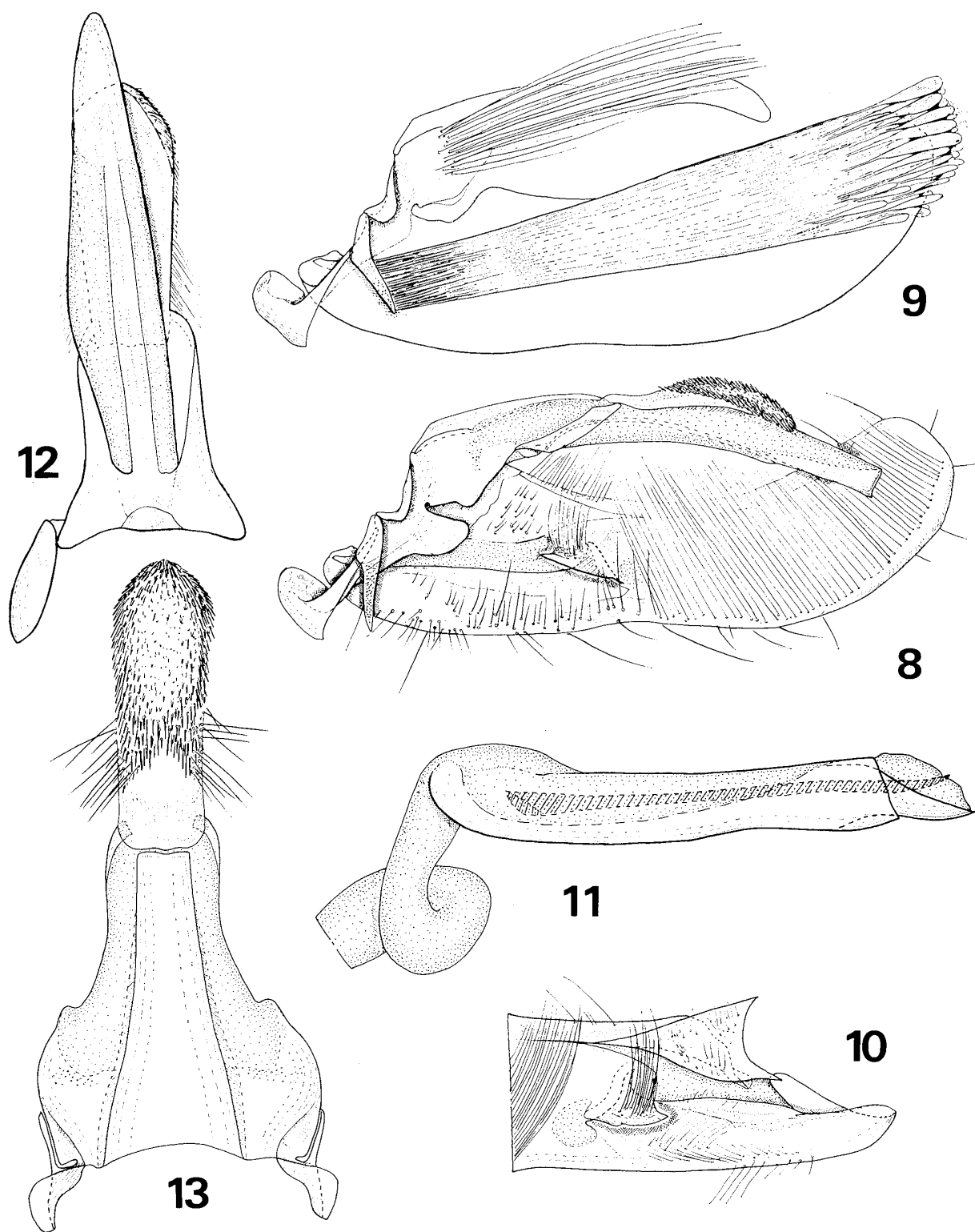
Distribution: India, Formosa, Japan (Kyushu, Yakushima, Tokara Iss., Amami-Oshima).

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\* Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka, Japan.



Figs. 1—7. Male genitalia of *Marasmia euryterminalis* Hampson: 1. whole genitalia, lateral aspect; 2. ditto, hairs and left valva removed; 3. left valva, inner aspect; 4. aedeagus, lateral aspect; 5. whole genitalia, latero-ventral aspect; 6. tegumen and uncus, dorsal aspect; 7. juxta, ventral aspect.



Figs. 8—13. Male genitalia of *Mecyna gilvata* (Fabricius): 8. whole genitalia, lateral aspect; 9. ditto, hairs and left valva removed; 10. base of left valva, inner aspect; 11. aedeagus, lateral aspect; 12. gnathos, ventral aspect; 13. tegumen and uncus, dorsal aspect.

**2. *Mecyna gilvata* (Fabricius) (Figs. 8-13, 22)**

*Phalaena gilvata* Fabricius, 1794, Ent. Syst. 3 (2): 208.

♂ & ♀: Antenna filiform, reddish brown. Labial palpus long, porrect, reddish brown above, white below; maxillary palpus reddish brown, curved inward, surrounding base of proboscis. In male, forewing light reddish brown, costa and marginal band much reddish; indistinct antemedial line oblique; a dark spot between antemedial line and discocellular lunule in discoidal cell; a short dark discocellular band; postmedial dark specks arranged in a line strongly curved outward; in female, ground color of forewing lustre, dark brown with a reddish tinge. Hindwing yellow, marginal band dark brown, narrowing posteriorly, extending to Cu<sub>1</sub> in male, and to A<sub>1</sub> in female. Abdomen yellowish ochreous above, white below. Legs white, anterior side of fore femur pinkish, that of fore tibia and tarsus light brown. A female specimen from Tsushima much darkened, forewing almost entirely dark brown with a reddish tinge, only discocellular band recognizable, hindwing yellowish, distal part broadly dark brown except for extreme margin.

♂ genitalia: Tegumen flat and elongate dorsally, lateral portion with a long hair tuft on near posterior margin. Vinculum broad laterally, with a sclerotized extension from upper portion into intersegmental membrane, a tuft of long hair-like scales on the sclerotized extension; saccus short. Uncus broad, with many short hairs dorsally, and with several setae on basal 1/2 laterally. Gnathos short, its ventromedial portion connected with base of long sclerotized ventral plate of anal tube. Aedeagus large, with a long distinctive cornutus; juxta small. Valva long, curved upward; costa broad, triangular, with a basal transtilla; ampulla of a triangular lamellate projection with sharply pointed, serrate tip; sacculus broad, with setae; harpe covered by ampulla, with sickle-like apex; cuculus broad, occupying distal 1/2 of valva, with a basal membranous area and many long hairs on ventral margin.

Specimens examined: 1♂, Takarajima, Tokara Iss., 20. July, 1964 (K. Kanmia); 1♀, Yuwan, Amami-Oshima, Amami Iss., 20. Aug., 1973 (Y. Yoshiyasu); 1♀, Tsutsu, Tsushima Is., 8. Sep., 1973 (K. Ueda, K. Setoya and Y. Yoshiyasu).

Distribution: S. E. Europe, Madeira, Syria, Abyssinia, Aden, India, Ceylon, Japan (Tsushima Is., Tokara Iss., Amami-Oshima).

**3. *Maruca amboinalis* (Felder et Rogenhofer) (Fig. 23)**

*Siriocauta amboinalis* Felder et Rogenhofer, 1874, Reis. Novara, 2 (2) Lep. pl. 135, f. 24.

♀: Antenna pale brown, almost as long as forewing. Labial palpus short, dark brown, 3rd segment pale brown; maxillary palpus porrect, dark brown, directing obliquely outward. Forewing dark ochreous, costal area fulvous on basal 2/3, indistinct dark brown subbasal and antemedial line oblique; distinct dark spot in cell; short dark brown discocellular lunule; a white spot beyond discoidal cell edged by dark brown line proximally, and dark brown postmedial line distally; whitish near apex and tornus; marginal black specks from cell R<sub>4</sub> to cell Cu<sub>2</sub>. Hindwing white, semihyaline, extreme base fuscous; discocellular lunule opaque white; interrupted indistinct postmedial line sinuous; submarginal dark brown band extending to cell Cu<sub>2</sub>, its inner margin incised on cells R<sub>5</sub> and M<sub>2</sub>. Abdomen ochreous dorsally, white ventrally, with a distinct patch of black scales in lateral part of 3rd segment. Legs long, white, fore femur and tibia fulvous.

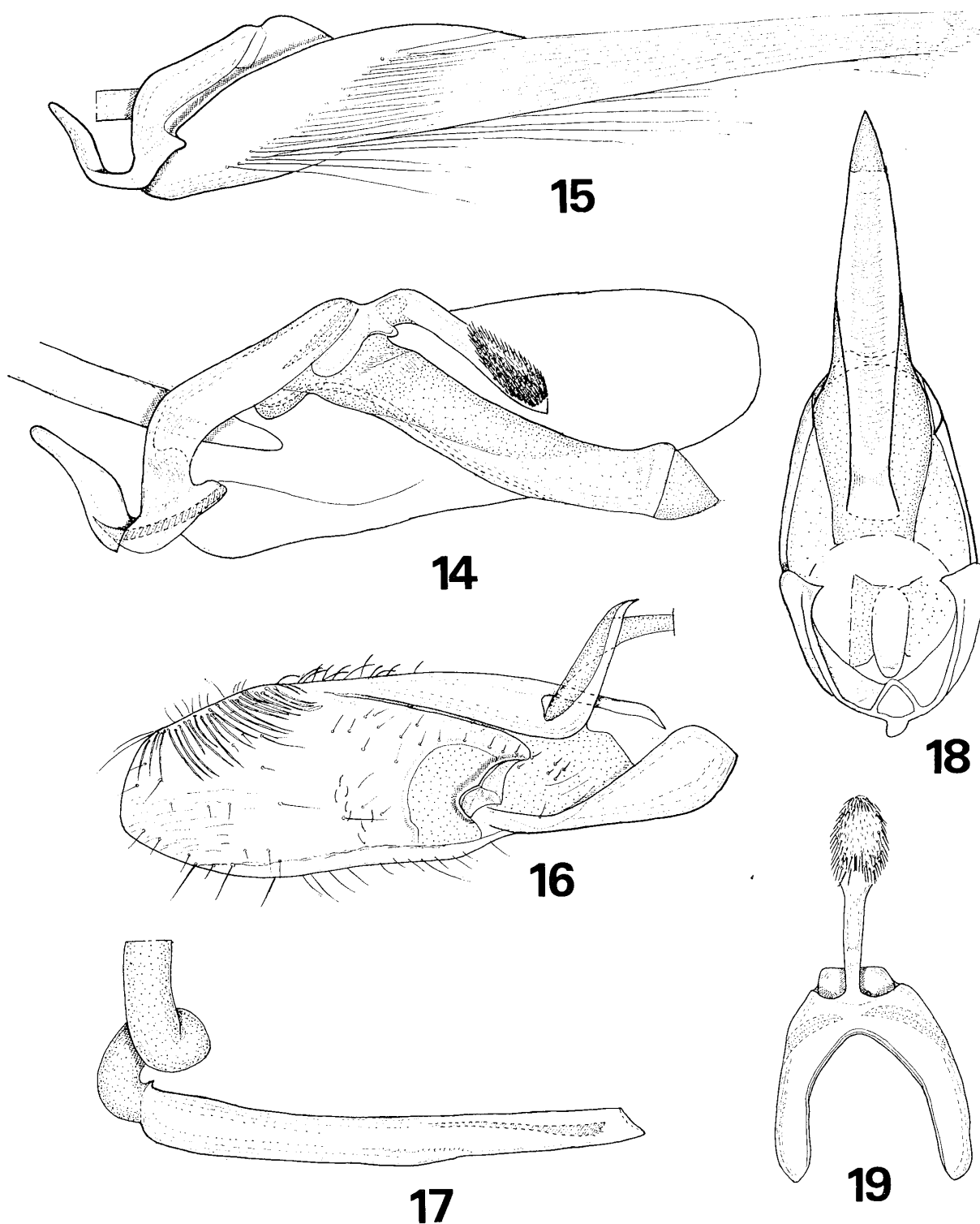
Specimens examined: 2♀, Mt. Banna, Ishigaki Is., the Ryukus, 30. May, 1973 (K. Ueda).

Distribution: India, Sumatra, Borneo, Formosa, Japan (the Ryukyus).

**4. *Cirrhochrista kosemponialis* Strand (Fig. 24)**

*Cirrhochrista kosemponialis* Strand, 1919, Stett. Ent. Zeit. 79 (2): 264.

♀: Antenna short, white above. Labial palpus elongate, porrect, black brown, 3rd segment slightly bending downward; maxillary palpus almost porrect, black brown, fulvous at tip. Frons and dorsal part of thorax white. Wings white; forewing with pale orange costa; fulvous antemedial band oblique outwardly; X-shaped dark marking in middle of wing, anterior branches surrounding orange triangular patch, outer posterior branch ending at tornus; postmedial line dark brown, oblique from subapical portion of costa to tip of M<sub>2</sub>, almost attached to marginal line between M<sub>2</sub> and Cu<sub>2</sub>, then curved to and connected with posterior



Figs. 14—19. Male genitalia of *Nausinoe perspectata* (Fabricius): 14. whole genitalia, lateral aspect; 15. ditto, hairs and left valva removed; 16. left valva, inner aspect; 17. aedeagus, lateral aspect; 18. whole genitalia, valva removed, ventral aspect ; 19. tegumen and uncus, dorsal aspect.

branches of X-shaped marking; marginal line dark brown. A row of silvery scales on basal 1/2 and apical 1/5 of costa, anterior branches of X-shaped marking and marginal line. Hindwing with indistinct pale orange marginal line. Legs white; foreleg orange beyond middle of femur, tip of femur, middle of tibia and 1st tarsomere black, and tips of tibia, 1st and 2nd tarsomeres white.

Specimens examined: 24♀, Mt. Banna, Ishigaki Is., the Ryukyus, 17–30. May, 1973 (K. Ueda); 1♀, Shinmura, Amami-Oshima, Amami Iss., 22. Aug., 1973 (Y. Yoshiyasu).

Distribution: India, Philippines, Formosa, Japan (Amami-Oshima, the Ryukyus).

This species was recorded from Amami-Oshima, Japan by Horii (1934).

### 5. *Nausinoe perspectata* (Fabricius) (Figs. 14–19, 20)

*Phalaena perspectata* Fabricius, 1775, Syst. Ent.: 640.

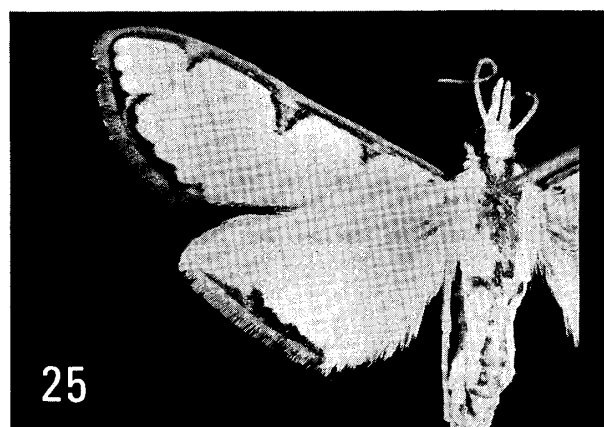
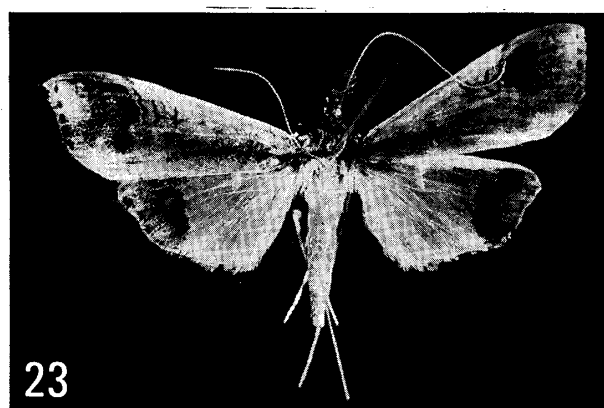
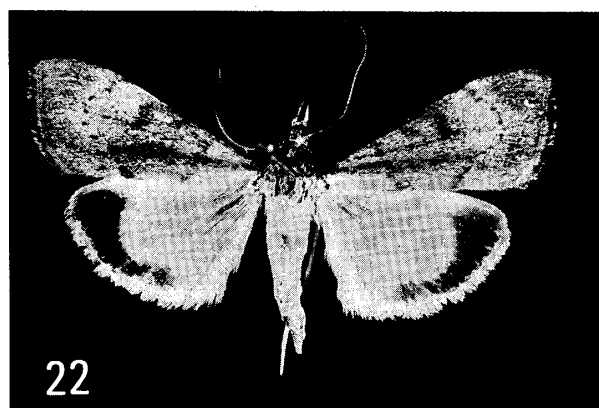
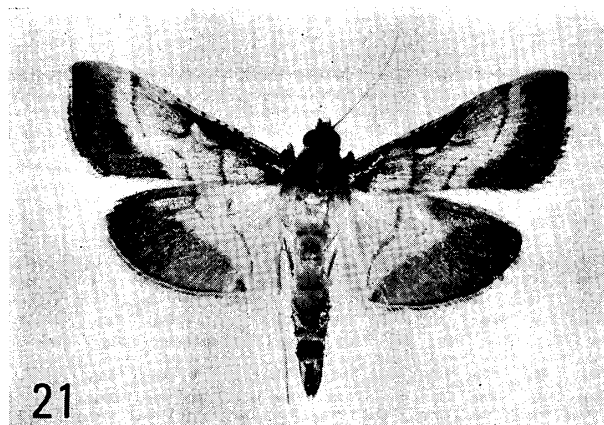
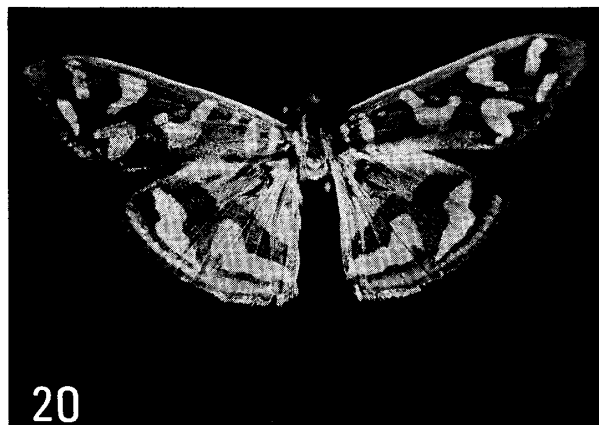
♂: Antenna little longer than forewing; labial palpus short, broad, ascending, white below; maxillary palpus small. Wings fuscous brown, with distinctive white markings as in fig. 20; costa of forewing and marginal band of hindwing yellowish brown;  $Cu_1$  and  $Cu_2$  very close at near base, the former strongly curved towards basal 1/3 of  $M_3$ , then gently divergent from it; basal portion of cell  $M_3$  with a short narrow transparent stripe free from scales. Legs long, fuscous brown; fore tibia with a long slender ventral hair-pencil arising from middle of tibia, extending to apex of 2nd tarsomere, and covered with curled hairs on apical 1/2 of 1st tarsomere, which bears long lateral hairs as in 2nd tarsomere.

♂ genitalia: Tegumen long, narrow, united with vinculum, with indistinct narrow membranous part on subdorsal region. Vinculum short, simple, suture between tegumen and vinculum weak. Saccus developed upward, slightly shorter than 1/2 of height of ring. Uncus spoon-like, weakly curved downwards near base, dorsally with many short hairs on apical 1/2. Gnathos broadly membranous ventrally, its lateral element connected with dorsolateral part of tegumen, fused with base of uncus. Anal tube twice as long as uncus, with a long sclerotized plate ventrally. Aedeagus elongate, with a narrow cornutus, furnished with a few denticles, coecum undeveloped; juxta oblong. Valva long oval, weakly convex dorsally, almost straight ventrally; costa well developed, forming strong transtilla; ampulla of lamellate projection distad of anellifer; sacculus broad basally, tapering apically; harpe small, apex concealed by ampulla; cuculus large, occupying distal 2/3 of valva with a membranous area basally.

Specimens examined: 3♂, Mt. Banna, Ishigaki Is., the Ryukyus, 30. May, 1973 (K. Ueda).

Distribution: India, Ceylon, Java, Formosa, Japan (the Ryukyus).

This species was reported to occur in the Ryukyus by Inoue (1963).



Figs. 20—25. Pyraustinae: 20. *Nausinoe perspectata* (Fabricius), ♂; 21. *Marasmia euryterminalis* Hampson, ♂; 22. *Mecyna gilvata* (Fabricius), ♀; 23. *Maruca amboinalis* (Felder et Rogenhofer), ♀; 24. *Cirrhochrista kosemponialis* Strand, ♀; 25. *Cirrhochrista brizalis* Walker, ♀.